

REMARKS

Claims 1-18 and 20-21 and 23-26 are pending in this application, with claims 13-14, 21 and 25 being withdrawn from consideration. By this Amendment, the specification and claims 1, 3, 8, 9, 15, 17, 21 and 23-26 are amended and claims 19 and 22 are canceled without prejudice to or disclaimer of the subject matter contained therein. No new matter is added.

I. Formal Matters

Applicants appreciate the courtesy shown to Applicants' representative by Examiner Jules in the January 19, 2006 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

The specification is amended to remedy minor informalities noted during review. These changes are fully supported by the original drawing Figs. 3, 4, 6 and 10. Accordingly, no new matter is added.

The Office Action withdraws claims 13-14, 21 and 25 as being directed to non-elected species. However, dependent claim 26 is not indicated to be withdrawn but depends from claim 25 and is not rejected under any grounds. Applicants request clarification of the status of this claim in the next Patent Office communication.

Applicants also request reconsideration and withdrawal of the election of species requirement. Although the Office Action states that Applicants' election was without traverse, this is not correct. Applicants' August 17, 2005 Response to Election of Species Requirement was made with traverse. Applicants argued that there was no undue burden established in requiring the election.

This position is now clarified for the Examiner. Four species were identified. As a result of this, at least claims 1-12, 15-20 and 22-23 were determined to be generic to all species.

The only difference in the elected species is that it uses all three springs and a particular keying feature, while remaining embodiments use a lesser number of springs and incorporate various spring lockout and base/cap keying features to prevent mismatching of component parts for a particular application. Of the non-elected claims, each of claims 13-14, and 21 are generic to each of species II-IV and independent claim 25 is a linking claim that recites a standardized assembly kit containing a plurality of different bases, caps and springs having spring locking and keying features to prevent improper mismatch of base, cap and spring combinations.

The Examiner is directed to 37 C.F.R. §1.146 where it is stated that an Examiner may require election when "more than a reasonable number of species" are present (emphasis added). In this case, because of the small number of species and the genericness of even the withdrawn claims, it is respectfully submitted that this is a "reasonable" number and it has not been shown to the contrary that there would be undue burden in examination, particularly given the fact that independent claim 24 has already been examined and includes the "spring lockout feature." Thus, claim 24 is arguably an examined linking claim.

Because of the close similarity of the species, and the presence of linking claims 24-25, Applicants request reconsideration and withdrawal of the election of species requirement.

II. Pending Claims Define Patentable Subject Matter

The Office Action rejects claims 1-2, 5-8, 17-18, and 22-24 under 35 U.S.C. §103(a) over U.S. Patent No. 4,924,779 to Curtis et al. in view of U.S. Patent No. 5,806,435 to Pitchford. This rejection is respectfully traversed.

Consistent with comments suggested by the Examiner during the January 19 personal interview, Applicants have revised the claims to more particularly recite the subject matter. In particular, the "combined load rating" feature is clarified to more clearly recite that it is the total combined load rating of a plurality of springs used in the constant contact side bearing.

Moreover, each of the independent claims now specifies that the combined load is between about 4,000 to 6,000 lb/in. This is supported, for example, by example 6 in Fig. 18 and paragraphs [0064] - [0065].

Additionally, in response to the Examiner's request for clarity of the term "coped," Applicants revise the claims to recite that the flat top surface mates with "each of the front, rear and side walls of the cap through flat, non-zero acute intersecting surfaces." This is fully supported, for example, by Fig. 3 (showing a perspective view), Fig. 7 (showing a cross-sectional view of fore/aft walls) and Fig. 8 (showing a cross-sectional view of side walls) where angled surfaces 129 mate at a non-zero, acute angle with the top surface and intersect both the top surface and the cap walls.

Further, independent claims 1 and 17 are amended to specify that the base and cap are "generally rectangular." This is supported, for example, by Figs. 3-9, which show substantially flat fore/aft walls and slightly arcuate side walls.

Thus, independent claims 1, 17 and 24 recite, *inter alia*, a long travel constant contact side bearing having a spring travel length of at least 5/8", at least two coil springs (urging members) with a combined load rating of between about 4,000 to 6,000 lb/in., a generally rectangular base and cap, and a precisely controlled spatial gap of between 0.006" - 0.046".

This combination of specific features has been tested and found to result in improved tracking curving, and load leveling characteristics of the truck without adversely affecting hunting, and while reducing impact forces, stresses and wear of the base and cap (Applicants' paragraphs [0019], [0021], [0052], and [0054]). For example, Applicants found that "substantially improved ride and load balancing characteristics were achieved by dramatically reducing the load rate of the springs" (paragraphs [0064]) in this long travel configuration. Applicants also found that this use of substantially softer spring constants provides a suspension system "with a slower reaction time." In particular, it was found that if below

about 4,000 lb/in, the side bearing may disengage from contact with the car body, which is undesirable. Moreover, if above about 6,000 lb/in., there were found to be sensitivities of set-up deviations and a lessening of ride quality. However, in between this range, improved ride and load balancing was achieved. Moreover, precise control of the spatial gap to be between about 0.006" to 0.046" has been found to reduce associated impact forces, stresses and wear (Applicants' paragraph [0019]).

The Office Action admits that Curtis fails to teach the use of a coil spring having a load rating of less than about 6,000 lb/in. For this, the Office Action relies on Pitchford. However, as discussed during the personal interview, Pitchford has numerous embodiments showing use of one or more springs and generally states that individual spring load rates may be between 500 - 10,000 lb/in. (Col. 7, lines 30-33). However, Pitchford does not disclose what the "combined load rating" of all springs is for any particular embodiment.

Thus, there is no express teaching of the use of a combined load rating within the recited range or a teaching of the criticality to such a range. Accordingly, absent impermissible hindsight, one of ordinary skill in the art would not have been led to the use of a combined spring loading of less than 6,000 lb./in, or more specifically between about 4,000 to 6,000 lb/in., as recited in each of independent claims 1, 17, 23 and 24. For example, if all three springs from Col. 6, lines 55+ were used, the combined load rating would be over 9,000 lb./in. Moreover, even many individual springs would exceed this range. Thus, even if combined, the combination does not teach or suggest this feature.

In support of this, see Applicants' paragraph [0064], where it is stated that "prior three-spring designs had dramatically higher spring constants, which were believed to be necessary to achieve proper load support and cushion to the railcar." This paragraph gives a known example that had a load rating of 7100 lb/in. Thus, one of ordinary skill in the art may have used individual springs that fall within the broad range disclosed in Pitchford, but would

have been led based on standard industry practices to combine them to provide a sufficiently high combined load rating to achieve what was perceived to be proper load support and cushion. The mere fact that references can be combined or modified does not render the combination obvious unless the prior art suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

During the personal interview, Examiner Jules also indicated that changes in spring rate, gap and other features were mere design choice. Applicants respectfully disagree.

Constant contact side bearings are provided primarily to control hunting of the truck. However, their design impacts several other truck characteristics, such as tracking, curving, load leveling, sway, load capacity, weight transfer reaction time, etc. Thus, a change to any one parameter may have an adverse impact on several other considerations. Because of this strong interaction, changes are not fully predictable and cannot be merely changed or evaluated through routine experimentation. Rather, to obtain a viable design would require extensive experimentation or testing to verify whether changes to one variable have a neutral, positive, or negative effect on other characteristics, and would also likely require compensating changes to other variables. Thus, there are multiple variables and numerous interactions that make a change more than routine. Moreover, optimization is not readily possible since there are no identified result-effective variables, particularly when adjustment has an effect on other parameters. Only when a result-effective variable is found can optimization be considered routine.

With respect to the spatial gap range, this range has been found critical to achieve desired control, hunting, wear and impact force criteria. However, Curtis has no details as to the tolerances or clearances, and at best teaches that preferably, "a minimum gap is provided between spacers 64, 65 and side portion 58" (Col. 5, lines 7-9). This gap is not defined, however, and may be understood to one of ordinary skill in the art as still being rather large,

considering the size and material used, such as a cast product, and the need to accommodate longitudinal rocking (col. 5, lines 1-3 of Curtis). Pitchford fails to overcome the deficiencies of Curtis.

Moreover, claims 1, 17, 23 and 24 now recite that the base and cap are substantially rectangular. This results in substantially flat fore/aft and side walls of the base and cap, and a resultant substantially flat spatial gap that is spread across a larger surface area. However, Curtis specifically teaches use of an entirely circular base and cap.

Accordingly, the Patent Office has not made a *prima facie* case of obviousness with respect to any of independent claims 1, 17, 23 and 24, and these claims and claims dependent therefrom should thus be deemed patentably distinct from the applied art.

Claim 17, 23 and 24 additionally recite that a top surface of the cap mates with each of front, rear, and side walls through a flat, non-zero acute intersecting surface. See, for example, surfaces 129 in Figs. 3, 7, and 8. Curtis uses a circular cap and thus has no such walls. Moreover, the top surface of the cap clearly mates with the peripheral wall through squared edges. The Office Action in its rejection of claim 3 admits the deficiencies of both Curtis and Pitchford in teaching the "coping" feature, which has been clarified by the amended claims. Accordingly, a *prima facie* case of obviousness has not been met.

Accordingly, for these additional reasons, independent claims 17 and 23-24 are patentably distinct and contain allowable subject matter.

Additionally, with respect to dependent claims 5-8, the Patent Office has not met its burden of providing a *prima facie* case of obviousness.

In particular, regarding claim 5, the Patent Office has failed to establish that the applied prior art teaches or suggests that the "cap and base are formed from Grade E steel."

Regarding claim 6, the Patent Office has failed to establish that the applied prior art teaches or suggests that the "outside surfaces of the base side walls, front wall and/or rear wall have hardened wear surfaces."

Regarding claim 7, the Patent Office has failed to establish that the applied prior art teaches or suggests that the "corresponding side walls of the base and cap include respective vertically-oriented openings and notches to form a side viewing window that allows visual inspection of the at least one spring." Curtis has no windows in Fig. 5 and does not have both a cap and a base in other embodiments. Pitchford also fails to teach a side window as claimed formed from vertical openings and notches in both the base and cap. Other non-applied references fail to overcome these deficiencies. For example, although Hassenauer has a window 27 (Figs. 3-4 and Col. 1, lines 53-56), this window is provided in only the base and is provided on the front and rear walls, not a side wall. Also, although Schorr has a viewing window 46 (Fig. 4 and Col. 4, lines 44-51), this window is provided in only the base wall.

Regarding claim 8, this claim specifies that the side walls are "substantially arcuate in profile and the front and rear walls are substantially flat." See Applicants' Figs. 4, 6 and 9, for example. Curtis provides a side bearing with circular walls and Pitchford provides a side bearing with flat walls.

Regarding independent claim 24, this claim recites a "spring lockout feature." The Office Action has not made a *prima facie* case of obviousness because the Office Action fails to establish that any of the applied references teach or suggest this claimed feature.

Accordingly, a *prima facie* case of obviousness has not been set forth with respect to dependent claims 5-8 and claim 24. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 3-4 under 35 U.S.C. §103(a) over Curtis et al. in view of Pitchford, further in view of U.S. Patent No. 3,748,001 to Neumann et al. This rejection is respectfully traversed.

Regarding dependent claim 3, claim 3 (as well as independent claims 17, 23, and 24) recites that the top surface of the cap mates with "each of the front, rear and side walls of the cap through flat, non-zero acute intersecting surfaces that reduce gouging on railway car body contact surfaces during use." Besides the circular cap of Curtis not having front, rear and side walls, Fig. 5 of Curtis clearly shows a cap having square edges. Pitchford similarly uses a cap with square edges. Neumann fails to overcome the deficiencies of Curtis and Pitchford.

The Office Action alleges that Neumann teaches coped surfaces. However, as clearly evidenced by Figs. 1-3, although side walls may be coped, front and rear walls 40 are taught to have squared edges with the top surface 36 (see in particular the cross-sectional view of Fig. 3). Accordingly, even if combined, the combination does not teach or suggest providing coped or flat, non-zero acute intersecting surfaces on each wall, including front and rear walls as claimed. Moreover, Neumann does not appreciate that such a top surface can reduce gouging.

Regarding claim 4, claim 4 is allowable for its dependence on allowable base claim 3 and for the additional features recited therein. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 9-12 and 20 under 35 U.S.C. §103(a) over Curtis et al. in view of Pitchford, further in view of U.S. Patent No. 3,735,711 to Hassenauer. This rejection is respectfully traversed.

Curtis and Pitchford are discussed above. As admitted, neither reference teaches a base and cap with complementary keying features. For this, the Patent Office relies upon Hassenauer, alleging that features 23 and 28 are keying features. Applicants disagree.

First, the claimed complementary keying features of claims 9-12 and 20 are clarified to be "located substantially on a diagonal to the fore/aft direction of the side bearing when mounted in a railway car truck." See, for example, Applicants' Figs. 9-10 showing elements

150, 160 located on the diagonal. Applicants have now specifically defined the diagonal feature.

The alleged structure in Hassenauer is provided perpendicular to the fore/aft direction of the railway car truck, and thus not on the diagonal as claimed. Because of this orientation, it cannot prevent improper orientation because the cap can be installed 180° relative to the base and still attach.

Second, the claimed complementary keying features "prevent mismatch or improper orientation of components." Hassenauer's cap 10 and finger structure are provided to prevent relative relation of the base and cap once properly mounted and thus is not a keying structure to prevent mismatch. Moreover, cap 10 can be installed with fingers 28 aligned within slot portion 23 without full relative rotation by a user to position 25. That is, cap 10 must be properly pressed down, slid laterally across opening 24 and released to be locked in opening 25. Thus, this side bearing is capable of being mispositioned. Also, as discussed above, cap 10 is capable of being mounted in two opposite positions (180° opposed). Thus, orientation cannot be ensured. On the other hand, with the claimed diagonal keying feature, the base and cap can mate with only one relative orientation.

Accordingly, dependent claims 9-12 and 20 define over the applied art. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 15-16 under 35 U.S.C. §103(a) over Curtis et al. in view of Pitchford, further in view of U.S. Patent No. 6,644,214 to Schorr. This rejection is respectfully traversed.

Dependent claims 15-16 are allowable for their dependence on allowable base claim 1 and for the additional features recited therein. Withdrawal of the rejection is respectfully requested.

III. Rejoinder of Withdrawn Claims

Because withdrawn claims 13, 14, 21 and 25 depend from or contain all of the features of allowable independent claims 1 or 17, these claims must be rejoined and allowed.

IV. Declaration

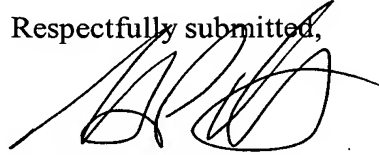
During the January 19 personal interview, it was suggested by Examiner Jules that a Declaration or affidavit signed by the inventors may advance prosecution. In light of the various clarifying changes to the claims, which address the specific concerns in the Examiner Interview Summary, it is not believed necessary to provide a Declaration at this time. However, Applicants may submit such a Declaration at a later time, if deemed necessary.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-18, 20-21, and 23-26 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



Christopher W. Brown
Registration No. 38,025

Stephen P. Catlin
Registration No. 36,101

CWB:SPC/dxc

Date: February 6, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

**DEPOSIT ACCOUNT USE
AUTHORIZATION**

Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461